Adopt Ed 504.01, previously effective 12-17-04 (Document #8229), and expired 12-17-12 to read as follows:

Ed 504.01 Beginning Educator Certificate. The board shall, pursuant to RSA 186:11, X(a), issue a certificate to a beginning educator in accordance with the following:

(a) To qualify for a beginning educator credential, an individual shall have less than 3 years of teaching experience to include teaching experience at the elementary and secondary levels of education;

(b) An individual shall be granted a beginning educator credential upon:

(1) Meeting the qualifications for a credential specified in Ed 505; and

(2) Successfully completing the application process specified in Ed 508; ***and***

(c) Beginning educator credentials shall be issued for 3 years; and ***renewed pursuant to Ed 509.***

Adopt Ed 504.02, previously effective 7-24-03 (Document #7923), and expired 7-24-11, to read as follows:

Ed 504.02 Experienced Educator Certificate. The board shall, pursuant to RSA 186:11, X(a), issue a certificate to an experienced educator in accordance with the following:

(a) To qualify for an experienced educator credential an individual shall have at least 3 years of full-time experience as an educator at the elementary through secondary levels of education, being deemed effective or above according to the local evaluation system for 2 consecutive years, and successfully completing a renewal cycle ***pursuant to Ed 509 and*** according to the state or local professional development master plan as determined by the local superintendent or district administrator or nonpublic school administrator; and

(b) An experienced educator credential shall be issued for 3 years.

Adopt Ed 504.03, previously effective 7-24-03 (Document #7923), and expired 7-24-11, to read as follows:

Ed 504.03 Intern License. The board shall, pursuant to RSA 186:11, X(a), issue a certificate to an intern, in accordance with the following:

(a) To qualify for an intern license an individual shall:

(1) Successfully complete the application method in:

a. Ed 505.04; or

b. Ed 505.05; and

(2) Be currently employed full-time in the field of education in a New Hampshire public or non-public school;

(b) Intern licenses shall be granted under Ed 505.04 for the duration of the individualized development plan and under Ed 505.05 for the duration of the site-based certification plan;

(c) Educators who hold a valid intern license shall receive a beginning educator credential after the bureau receives:

(1) The final report required under Ed 505.04(i) relating to the educator's completion of an individualized development plan, if the person holds an intern license under Ed 505.04; or

(2) A statement from the superintendent as provided in Ed 505.05(j) that the intern has completed the intern's site-based certification plan;

(d) The applicant shall pay the same fee as the fee for a renewal of certificate under Ed 508.06, and the provisions of Ed 509.04 relative to late filing petitions shall apply.

Adopt Ed 504.04, previously effective 7-24-03 (Document #7923), and expired 7-24-11, to read as follows:

Ed 504.04 Permission to Employ

(a) The superintendent of schools shall request permission to employ from the bureau, and the permission to employ shall be granted provided that the requirements of paragraphs (b) through (e) are met. The applicant for the teaching position shall provide the information and documentation required in (c) and (e) below.

(b) The bureau shall issue a permission to employ applied for under (a) above if an emergency situation exists as determined by the local school district and the applicant for the teaching position has:

(1) Paid the applicable application fee, provided in Ed 508.06(c); and

(2) Filed with the bureau the information and documentation required in (c) and (e).

(c) An applicant for a teaching position for whom a superintendent is requesting permission to employ shall provide the following information or documents, unless it is specified below that the information is optional, on or with the form titled "Application for Emergency Permission to Employ":

(1) Social security number, unless the applicant chooses to have the department supply an alternative number, subject to the provisions of (d) and (e) below;

(2) Date of birth;

(3) Name;

(4) Address;

(5) Sex, which may be specified at the option of the applicant;

(6) Telephone number;

(7) Date of application;

(8) Educational information, including the following:

a. Degree, if any;

b. Major;

c. State;

d. College or university;

e. Date degree granted; and

f. Transcript for each degree listed;

(9) Educational employment record for the last 7 years including:

a. Dates;

b. State;

c. School district;

d. Position;

e. Assignment/subject;

f. Grade level;

g. Credential held;

h. Number of years of any public school experience;

i. Number of years of any non-public school experience; and

j. Copy of each teaching credential held in New Hampshire , other state, or both;

(10) Whether the applicant ever held a New Hampshire credential and, if so, the year it expired and the name under which it was issued;

(11) Whether the applicant has ever been convicted of a felony and, if so, an explanation;

(12) Whether the applicant has ever had a teaching credential revoked or suspended and, if so, an explanation;

(13) Whether the applicant has ever surrendered a teaching credential in any other state, and, if so, an explanation;

(14) Whether the applicant has ever been subject of a finding of professional misconduct in New Hampshire, another state, or territory of the United States, or foreign country and, if so, an explanation; and

(15) Identification of ethnic origin, which may be specified at the option of the applicant, including one of the following categories:

a. American Indian;

b. Asian/Pacific;

c. African-American/Non-Hispanic;

d. White/Non-Hispanic;

e. Hispanic;

f. Multi-ethnic; and

g. Other/do not wish to specify.

(d) If an applicant provides a social security number under (c)(1) above, the social security number shall be used by the bureau for the purposes of generating data on teacher salaries or such other purposes as authorized by law including but not limited to RSA 161-B:11,VI-a.

(e) If an applicant chooses to have the department supply an alternative number, the department shall use the teacher number generated by the electronic educator information system and it shall be used as specified in (b).

(f) A permission to employ shall be issued to the superintendent of schools for up to one school year and shall not be renewable.

Adopt Ed 504.041 to read as follows:

Ed 504.041 In Process of Certification (IPC).

(a) The applicant who is in process of certification (IPC) shall sign the application acknowledging that all information contained on the application is true, accurate and complete to the best of the applicant's knowledge.

(b) If a superintendent files an in IPC with the bureau, the bureau shall approve such filing, if the bureau finds that the applicant who is the subject of the IPC:

(1) Is in the process of certification;

(2) Has submitted a completed application for certification; and

(3) Has paid any applicable fees.

(c) An approved IPC shall be issued to the superintendent of schools for up to one school year and shall not be renewable.

Readopt with amendment Ed 507.02, previously effective 12-7-04 (Document #8229), as amended in paragraph (a) effective 8-12-11 (Document#9974), and expired in paragraph (b) 12-17-11, to read as follows:

Ed 507.02 Career and Technical Education Teacher.

(a) In addition to meeting the requirements for specialty certification under Ed 507.03 or for comprehensive certification under Ed 507.04, Ed 507.05, Ed 507.40, Ed 507.41, or Ed 507.42, a teacher of career and technical education shall have the qualifications listed in (b) below.

(b) Qualifications for a career and technical education teacher shall include the following skills, competencies, and knowledge:

(1) Knowledge of:

a. The global economy, including:

1. The changing nature of the labor market;

2. Occupational analysis utilizing multiple data sources;

3. Industry needs, locally, regionally and nationally;

4. Workplace environment of business; and

5. Relationships with business & industry and postsecondary education;

b. Relevance and rigor for career and technical education programs, including:

1. Program advisory committees;

2. Statutes and rules governing career and technical education;

3. Third party technical skill assessments;

4. Academic and career and technical education content standards;

5. Career and technical education program competency knowledge;

6. Career and technical student organizations (CTSOs);

7. Performance indicators; and

8. Safety regulations and laws; and

c. Career pathways into postsecondary education, including:

1. Nationally recognized technical skills assessments with certifications;

2. Academic and technical expectations for postsecondary programs;

3. Employability and workplace skills;

4. Evaluation techniques;

5. Dual enrollment agreements; and

6. Articulation agreement; and

(2) Ability to:

a. Work collaboratively with colleagues, the community, business and industry and postsecondary institutions to develop career and technical education programs that will prepare students for college and career readiness;

b. Integrate academic, industry and technical content into a program that meets all necessary competencies and standards for local, state and federal requirements;

c. Use data effectively to ensure continuous program improvement; and

d. Develop and sustain programs that prepare students for a wide variety of careers.

Adopt Ed 507.03, previously effective 12-17-04 (Document #8229), and expired 12-17-12, to read as follows:

Ed 507.03 Career and Technical Specialty Certification.

(a) An individual shall have the following entry level requirements to be certified as a career and technical educator in a specialty area:

(1) Have completed a bachelor's degree or higher in a career and technical education-related program, including, but not limited to, an engineering program or a biotechnology program;

(2) Meet the following qualifications:

a. Have completed a 2-year career and technical program;

b. Have at least 2,000 hours of successful full-time working experience in the specialty area in which the candidate may be employed; and

c. Establish an individualized professional development plan as specified in Ed 505.04, alternative 4: individualized professional development plan; or

(3) Meet the following qualifications:

a. Have at least 4,000 hours of successful full-time working experience in the specialty area in which the candidate may be employed; and

b. Establish an individualized professional development plan as specified in Ed 505.04, alternative 4: individualized professional development plan.

(b) In addition to the entry level requirements in (a) above, an individual shall:

(1) If not already certified in another area, meet the professional education requirements listed in Ed 505.07; and

(2) Meet the skills, competencies, and knowledge qualifications for certification as a career and technical education teacher as provided in Ed 507.02(b).

(c) In addition to the requirements listed in (a) and (b) above, the individual shall meet the applicable licensure, certification, and registration requirements for each of the following specialty areas in which the individual seeks certification:

(1) Agriculture, food, and natural resources;

(2) Architecture and construction;

(3) Arts, audio-visual technologies, and communication;

(4) Business management and administration;

(5) Education and training;

(6) Finance;

(7) Government and public administration;

(8) Health sciences;

(9) Hospitality and tourism;

(10) Human services;

(11) Information technology;

(12) Law and public safety;

(13) Manufacturing;

(14) Marketing sales and services;

(15) Science, technology, engineering, and mathematics; and

(16) Transportation, distribution, and logistics.

Adopt Ed 507.09, previously effective 12-17-04 (Document #8229), and expired 12-17-12, to read as follows:

Ed 507.09 Visual Arts Teacher. The following requirements shall apply to the certification of a visual arts teacher in grades K-12:

(a) To be certified as a visual arts teacher, the candidate shall have:

(1) At least a bachelor's degree; and

(2) Qualify for certification under one of the alternatives in Ed 505.01 – Ed 505.05; and

(b) A candidate for certification as a visual arts teacher shall have the following skills, competencies and knowledge through a combination of academic and supervised practical experiences in following areas:

(1) In the area of personal artistry and art making:

a. Demonstrating depth of artistic knowledge by compiling a personal portfolio of artwork that shows a synthesis of concept development, personal voice, and technical skill in at least one medium;

b. Demonstrating breadth of artistic knowledge by compiling a personal portfolio of artwork that shows development of technical skills and processes in each of the following art forms:

1. Two-dimensional techniques and processes, including but not limited to:

(i) Observational drawings including objects, environment, and the figure and expressive drawing;

(ii) Painting; and

(iii) Printmaking;

2. Three-dimensional techniques and processes, including but not limited to:

(i) Ceramics; and

(ii) Sculpture;

3. New and emerging digital and electronic technologies; and

4. One or more additional media including:

(i) Fiber arts;

(ii) Photography;

(iii) Mixed media/materials;

(iv) Cultural art forms;

(v) Jewelry;

(vi) Installation; and

(vii) Non-traditional materials;

c. Applying the creative process to the development of composition, subject matter, ideas, and selection of media as demonstrated through a personal portfolio of artwork;

d. Developing a personal statement/philosophy to be included in a personal portfolio of artwork that demonstrates an integration of personal iconography and ideas using a breadth of media techniques, styles, and forms of expression; and

e. Demonstrating a range of artistic methodologies from exploration to mastery for a variety of media, materials, and processes showing related techniques and tools including proper care, safety, and use;

(2) In the area of visual literacy and presentation:

a. Synthesizing foundational vocabulary to inform and develop a range of subject matter, symbols, and ideas in the creation and analysis of art including:

1. Elements of art including line, space, color, shape, form, value, and texture; and

2. Principles of design organization including balance, proportion, emphasis and contrast, unity and harmony, pattern, movement, and rhythm;

b. Analyzing the expressive, representational, and symbolic characteristics of the visual language;

c. Displaying, presenting, and exhibiting artwork in a variety of settings, platforms of technology, and in diverse contexts that are educationally informative to multiple audiences;

d. Demonstrating proficiency in presentation of written and oral artist statements and/or exhibition statements; and

e. Applying knowledge and understanding of copyright law and fair use practices to personal art making;

(3) In the area of history, culture, and aesthetic context:

a. Demonstrating the ability to perceive, interpret, and respond to ideas, experiences, and the environments of the visual arts of various cultures;

b. Demonstrating an understanding of global art history and how visual art is an integral component of history and the human experience from early cultures to contemporary times;

c. Identifying, analyzing and applying criteria for making visual aesthetic judgments from cultural, historical and personal perspectives; and

d. Demonstrating the ability to reflect on and assess one's artwork and the work of others, recognizing and considering a variety of viewpoints and using methods of art criticism; and

(4) In the area of curriculum and assessment:

a. Designing and advocating for a comprehensive K-12 visual art program that:

1. Facilitates the development of artistic skill, creative processes and aesthetic understanding sequentially over time;

2. Is consistent with RSA 193-C: 3, III;

3. Includes art making and other materials appropriate to the diverse needs, interests, and capacities of all students;

4. Includes opportunities and resources available beyond the visual art classroom; for example museums, galleries, artist studios, community artists, and recognition programs;

5. Can be made available to all students by designing and constructing modifications to visual art tools and materials that meet unique student needs;

6. Integrates global art history into the visual art curriculum;

7. Includes planning and implementation of lessons that connect thinking skills, concepts, and themes among the visual arts and other disciplines;

8. Integrates current technologies and multimedia to enhance and develop concepts and skills;

9. Includes introducing students to a variety of career options and assists students in investigating career options, when appropriate; and

10. Guides students in the creation of their personal and professional portfolios, when appropriate; and

b. Developing and applying multiple formal and informal assessment methods specific to visual art to determine students' attainment of art-based competencies.

Amend Ed 507.12 (a), effective 9-16-11 (Document #9993), to read as follows:

Ed 507.12 Reading and Writing Specialist.

(a) A candidate for certification as a reading and writing specialist for grades K-12 shall meet the following entry level requirements:

(1) The candidate shall have at least a master's degree in reading/writing or a related field;

(2) The general education requirements specified in Ed 505.06;

(3) The professional education requirements specified in Ed 505.07 if applicable; and

(4) Completed at least 2 years of successful classroom teaching experience while holding an educator credential.

Adopt Ed 507.251 to read as follows:

Ed 507.251 Elementary Mathematics Specialist for grades K-6

(a) A candidate for certification as a mathematics specialist for grades K-6 shall meet the following entry level requirements:

(1) The candidate shall have at least a master's degree in mathematics, education or a related field and can document a passing score on the Praxis II Middle School Mathematics test or equivalent;

(2) The general education requirements specified in Ed 505.06;

(3) The professional education requirements specified in Ed 505.07;

(4) Hold a valid experienced educator endorsement; and

(5) Completed at least 3 years of successful classroom teaching of mathematics within grades pk-6.

(b) A candidate for certification as an elementary mathematics specialist for grades pk-6 shall have the following skills, competencies, and knowledge through a combination of academic and supervised practical experiences (three semester hours or equivalent in a supervised practicum or school-based internship) in the following areas:

(1) In the area of content knowledge have the ability to:

a. Apply knowledge of major pk-6 mathematical concepts, algorithms, procedures and connections;

b. Demonstrate an understanding of the sequential nature of mathematics and the mathematical structures and connections inherent in the following content domains:

1. In the domain of number and operations have the ability to:

(i) Demonstrate knowledge of pre-number and early number concepts;

(ii) Interpret and represent number systems including whole numbers, integers, rationals, irrationals, reals and the application of their properties;

(iii) Demonstrate knowledge of concepts and applications of number theory including multiplicative arithmetic;

(iv) Demonstrate a variety of interpretations of the 4 operations of arithmetic and of the common ways they can be applied; and

(v) Use proportional reasoning demonstrating connections to fractions, ratios, rates, and scaling;

2. In the domain of functions and algebra have the ability to:

(i) Analyze and generalize a wide variety of patterns and functions for example linear, quadratic, and exponential moving fluently among representations including tables, graphs, written word, and symbolic rules;

(ii) Analyze change and rates of change in various contexts including proportional and inversely proportional relationships;

(iii) Model and solve problems, both mathematical and "real world," using algebraic methods; and

(iv) Apply the conventions of algebra that is the order of operations and the properties of real numbers commutative, associative, distributive, identity, inverse, and zero properties to algebraic expressions, equations, and inequalities;

3. In the domain of measurement have the ability to:

(i) Utilize non-standard and standard units of measure using appropriate units, techniques, and tools;

(ii) Model and use common units of geometric measures for: angles, perimeter, area and volume, through mathematical and practical contexts;

(iii) Employ estimation as a way of understanding measurement units and processes of measuring those attributes;

(iv) Apply measurement conversion strategies; and

(v) Connect proportionality to measurement including similar figures;

4. In the domain of Geometry have the ability to:

(i) Build and manipulate representations of two- and three-dimensional objects using concrete models, perspective drawings, projections, and dynamic geometry software;

(ii) Analyze properties and relationships among geometric shapes and structures;

(iii) Specify locations and describe spatial relationships using coordinate geometry;

(iv) Apply transformations and compositions of transformations including dilations, translations, rotations, and reflections with symmetry, congruence, and similarity; and

(v) Use geometric constructions and axiomatic reasoning to make and prove conjectures about geometric shapes and relations;

5. In the domain of data analysis and probability have the ability to:

(i) Use data from a random sample to draw inferences about a population;

(ii) Construct and interpret graphical displays of univariate data distributions for example, box plots and histograms;

(iii) Summarize and describe univariate data in relation to its context by using measures including the mean, median, mode, interquartile range, and mean absolute deviation;

(iv) Use scatterplots to analyze bivariate data and utilize lines of best fit to model the relationship between the variables; and

(v) Determine the empirical and theoretical probability for both simple and compound events; and

c. Demonstrate knowledge of the history of mathematics, including the contributions of different individuals and cultures toward the development of mathematics and the role of mathematics in culture and society;

(2) In the area of mathematical practices have the ability to:

a. Communicate and demonstrate the importance of problem solving and its use in developing conceptual understanding;

b. Represent and model mathematical ideas;

c. Reason abstractly, reflectively, and quantitatively including constructing viable arguments and proofs;

d. Attend to precision;

e. Identify elements of structure and express regularity in patterns of mathematical reasoning;

f. Utilize appropriate mathematical vocabulary and symbols to communicate mathematical ideas; and

g. Demonstrate the interconnectedness of mathematical ideas including making connections across various content areas and real-world contexts;

(3) In the area of mathematical pedagogy have the ability to:

a. Plan and assist others in planning instruction incorporating a variety of strategies including mathematics-specific instructional technologies to build all students' conceptual understanding and procedural proficiency;

b. Analyze and consider research in planning for mathematics instruction;

c. Select and apply instructional techniques that assist in identifying and addressing student misconceptions;

d. Use mathematical content and pedagogical knowledge to select, use, adapt and determine the suitability of mathematics curricula and teaching materials for particular learning goals;

e. Understand students' development in mathematics using holistic, analytical, and diagnostic tools; and

f. Demonstrate developmentally appropriate use of assessments in their practice and train classroom teachers to administer and interpret assessment results; and

(4) In the area of professional knowledge and skills have the ability to:

a. Demonstrate mathematics-focused instructional leadership;

b. Plan, develop, implement and evaluate mathematics-focused professional development programs;

c. Evaluate the alignment of state mathematical standards, district curricula, state and local assessments and recommend appropriate adjustments;

d. Support teachers in systematically reflecting on and learning from their mathematical practice;

e. Collaborate with school-based professionals to develop evidence-based interventions for high-and low- achieving students; and

f. Analyze and interpret mathematics assessment data and communicate results to appropriate and varied audiences.

Amend Ed 507.28 introduction, (a), and (b) introduction, effective 10-16-09 (Document #9566), to read as follows,

Ed 507.28 Middle Level Science Teacher For Grades 5-8. The following requirements shall apply to the certification of a middle level science teacher for grades 5-8:

(a) To be certified as a middle level science teacher for grades 5-8, the candidate shall:

(1) Have at least a bachelor's degree;

(2) Meet the qualifications for certification as a science teacher as provided in Ed 507.29;

(3) Qualify for certification under one of the alternatives in Ed 505.01 – Ed 505.05; and

(4) Meet the requirements of (b) below.

(b) A candidate for certification as a middle level science teacher for grades 5-8 shall have the following skills, competencies and knowledge, gained through a combination of academic and supervised practical experiences, in the following areas:

Amend Ed 507.29 (a), effective 10-16-09 (Document #9566), to read as follows:

Ed 507.29 Science Teacher; General Requirements.

(a) In addition to meeting the requirements for certification under Ed 507.28 for middle level science teacher for grades 5-8, Ed 507.30 for Earth-space science teacher, Ed 507.31 for life sciences

teacher, Ed 507.32 for chemistry teacher, Ed 507.33 for physics teacher, or Ed 507.51 for educator in physical science for grades 7-12 a science teacher shall have the qualifications listed in (b) and (c) below.

Amend Ed 507.50(a), effective 10-15-10 (Document #9799), to read as follows:

Ed 507.50 Reading and Writing Teacher. The following requirements shall apply to the certification of a reading and writing teacher:

(a) The candidate shall:

(1) Qualify for certification under one of the alternative in Ed 505.01 – Ed 505.05; and

(2) Have completed at least 2 years of successful classroom teaching experience while holding an educator credential; and

(3) Meet the requirements of (b) below.

Adopt Ed 507.51 to read as follows:

Ed 507.51 Physical Science For Grades 7-12. The following requirements shall apply to the certification of an educator in physical science for grades 7-12:

(a) To be certified as an educator in educator in physical science for grades 7-12, the candidate shall:

(1) Have at least a bachelor's degree;

(2) Meet the qualifications for certification as a science teacher as provided in Ed 507.29;

(3) Qualify for certification under one of the alternatives in Ed 505.01 – Ed 505.05; and

(4) Meet the requirements of (b) below.

(b) A candidate for certification as an educator in physical science for grades 7-12 shall have the following skills, competencies and knowledge, gained through a combination of academic and supervised practical experiences, in the following areas:

(1) In the area of fundamental knowledge, the candidate shall have the ability to:

a. Represent visually and verbally how the world works at an atomic and molecular level;

b. Explain concepts, solve problems, and perform laboratory techniques at an introductory level in the following fundamental areas:

1. Inorganic;

2. Organic;

3. Physical; and

4. Analytical chemistry;

c. Explain concepts, solve problems, and perform laboratory techniques at an introductory level in the following fundamental areas:

1. Mechanics;

2. Conservation laws;

3. Electricity;

4. Magnetism;

5. Waves; and

6. Optics;

d. Apply mathematical concepts, at least through the level of introductory calculus and statistics;

e. Apply computer technology, including hardware and software, to acquire and analyze data, and to collect and communicate information; and

f. Integrate knowledge from the history and philosophy of science into physical science instruction; and

(2) In the area of instructional performance, the candidate shall have the ability to:

a. Design and teach laboratory activities which incorporate scientific processes and promote scientific habits of mind;

b. Integrate the knowledge of the methods of teaching reading, writing, communication, and study skills essential to the effective mastery of physical science content;

c. Relate science to technological issues that influence society and the ethical and moral consequences of decisions related to those issues;

d. Model and teach safe laboratory and field practices, including personal safety and equipment storage and upkeep, and waste handling and disposal;

e. Identify the organizations, agencies and journals that contribute to the professional growth of the physical science teacher;

f. Integrate the common themes exhibited in all of the sciences into teaching and course design including:

1. Systems;

2. Models;

3. Constancy or stability;

4. Change;

5. Evolution; and

6. Scale;

g. Design learning activities which foster questioning, open-ended investigations, the development of cooperative group skills, and promote practice in decision making and problem solving;

h. Select, adapt, evaluate, and use age-appropriate strategies and materials for the learning of physical science, including the recommendations of national curriculum projects and scientific groups, and the framework; and

i. Organize, present, and evaluate physical science ideas in a manner which emphasizes conceptual understanding and in ways which provide for optimal learning experiences for students of all ability levels.

Adopt Ed 612.01, previously effective 12-17-04 (Document #8229), and expired 12-17-12, to read as follows:

Ed 612.01 Visual Arts. The teacher preparation program for visual arts in grades K-12 shall provide the teaching candidate with skills, competencies, and knowledge through a combination of academic experiences, demonstrated competency, or equivalent experiences in following areas:

(a) In the area of personal artistry and art making:

(1) Demonstrating depth of artistic knowledge by compiling a personal portfolio of artwork that shows a synthesis of concept development, personal voice, and technical skill in at least one medium;

(2) Demonstrating breadth of artistic knowledge by compiling a personal portfolio of artwork that shows development of technical skills and processes in each of the following art forms:

a. Two-dimensional techniques and processes, including but not limited to:

1. Observational drawings including objects, environment, and the figure and expressive drawing;

2. Painting; and

3. Printmaking;

b. Three-dimensional techniques and processes, including but not limited to:

1. Ceramics; and

2. Sculpture;

c. New and emerging digital and electronic technologies; and

d. One or more additional media including:

1. Fiber arts;

2. Photography;

3. Mixed media/materials;

4. Cultural art forms;

5. Jewelry;

6. Installation; and

7. Non-traditional materials;

(3) Applying the creative process to the development of composition, subject matter, ideas, and selection of media as demonstrated through a personal portfolio of artwork;

(4) Developing a personal statement/philosophy to be included in a personal portfolio of artwork that demonstrates an integration of personal iconography and ideas using a breadth of media techniques, styles, and forms of expression; and

(5) Demonstrating a range of artistic methodologies from exploration to mastery for a variety of media, materials, and processes showing related techniques and tools including proper care, safety, and use;

(b) In the area of visual literacy and presentation:

(1) Synthesizing foundational vocabulary to inform and develop a range of subject matter, symbols, and ideas in the creation and analysis of art including:

a. Elements of art including line, space, color, shape, form, value, and texture; and

b. Principles of design organization including balance, proportion, emphasis and contrast, unity and harmony, pattern, movement, and rhythm;

(2) Analyzing the expressive, representational, and symbolic characteristics of the visual language;

(3) Displaying, presenting, and exhibiting artwork in a variety of settings, platforms of technology, and in diverse contexts that are educationally informative to multiple audiences;

(4) Demonstrating proficiency in presentation of written and oral artist statements and/or exhibition statements; and

(5) Applying knowledge and understanding of copyright law and fair use practices to personal art making;

(c) In the area of history, culture, and aesthetic context:

(1) Demonstrating the ability to perceive, interpret, and respond to ideas, experiences, and the environments of the visual arts of various cultures;

(2) Demonstrating an understanding of global art history and how visual art is an integral component of history and the human experience from early cultures to contemporary times;

(3) Identifying, analyzing and applying criteria for making visual aesthetic judgments from cultural, historical and personal perspectives; and

(4) Demonstrating the ability to reflect on and assess one's artwork and the work of others, recognizing and considering a variety of viewpoints and using methods of art criticism; and

(d) In the area of curriculum and assessment:

(1) Designing and advocating for a comprehensive K-12 visual art program that:

a. Facilitates the development of artistic skill, creative processes and aesthetic understanding sequentially over time;

b. Is consistent with RSA 193-C: 3, III;

c. Includes art making and other materials appropriate to the diverse needs, interests, and capacities of all students;

d. Includes opportunities and resources available beyond the visual art classroom; for example museums, galleries, artist studios, community artists, and recognition programs;

e. Can be made available to all students by designing and constructing modifications to visual art tools and materials that meet unique student needs;

f. Integrates global art history into the visual art curriculum;

g. Includes planning and implementation of lessons that connect thinking skills, concepts, and themes among the visual arts and other disciplines;

h. Integrates current technologies and multimedia to enhance and develop concepts and skills;

i. Includes introducing students to a variety of career options and assists students in investigating career options, when appropriate; and

j. Guides students in the creation of their personal and professional portfolios, when appropriate; and

(2) Developing and applying multiple formal and informal assessment methods specific to visual art to determine students' attainment of art-based competencies.

Adopt Ed 614.14 to read as follows:

Ed 614.14 Elementary Mathematics Specialist For Grades K-6

(a) The elementary mathematics specialist program for grades k-6 shall provide the candidate with the ability to meet the entry level requirement for all elementary mathematics specialists with a master's degree in mathematics, education or a related field from a college or university.

(b) The graduate program for grades k-6 shall provide the teaching candidate with skills, competencies, and knowledge through a combination of academic and supervised clinical experiences including three semester hours or equivalent in a supervised clinical school-based internship in the following areas:

(1) In the area of content knowledge have the ability to:

a. Apply knowledge of major pk-6 mathematical concepts, algorithms, procedures and connections;

b. Demonstrate an understanding of the sequential nature of mathematics and the mathematical structures and connections inherent in the following content domains:

1. In the domain of number and operations have the ability to:

(i) Demonstrate knowledge of pre-number and early number concepts;

(ii) Interpret and represent number systems including whole numbers, integers, rationals, irrationals, reals and the application of their properties;

(iii) Demonstrate knowledge of concepts and applications of number theory including multiplicative arithmetic;

(iv) Demonstrate a variety of interpretations of the four operations of arithmetic and of the common ways they can be applied; and

(v) Use proportional reasoning demonstrating connections to fractions, ratios, rates, and scaling;

2. In the domain of functions and algebra have the ability to:

(i) Analyze and generalize a wide variety of patterns and functions for example linear, quadratic, and exponential, moving fluently among representations including tables, graphs, written word, and symbolic rules;

(ii) Analyze change and rates of change in various contexts including proportional and inversely proportional relationships;

(iii) Model and solve problems, both mathematical and "real world," using algebraic methods; and

(iv) Apply the conventions of algebra that is the order of operations and the properties of real numbers commutative, associative, distributive, identity, inverse, and zero properties to algebraic expressions, equations, and inequalities;

3. In the domain of measurement have the ability to:

(i) Utilize non-standard and standard units of measure using appropriate units, techniques, and tools;

(ii) Model and use common units of geometric measures for: angles, perimeter, area and volume, through mathematical and practical contexts;

(iii) Employ estimation as a way of understanding measurement units and processes of measuring those attributes;

(iv) Apply measurement conversion strategies; and

(v) Connect proportionality to measurement including similar figures;

4. In the domain of geometry have the ability to:

(i) Build and manipulate representations of two- and three-dimensional objects using concrete models, perspective drawings, projections, and dynamic geometry software;

(ii) Analyze properties and relationships among geometric shapes and structures;

(iii) Specify locations and describe spatial relationships using coordinate geometry;

(iv) Apply transformations and compositions of transformations (including dilations, translations, rotations, and reflections) with symmetry, congruence, and similarity; and

(v) Use geometric constructions and axiomatic reasoning to make and prove conjectures about geometric shapes and relations;

5. In the domain of data analysis and probability have the ability to:

(i) Use data from a random sample to draw inferences about a population;

(ii) Construct and interpret graphical displays of univariate data distributions for example, box plots and histograms;

(iii) Summarize and describe univariate data in relation to its context by using measures including the mean, median, mode, interquartile range, and mean absolute deviation;

(iv) Use scatterplots to analyze bivariate data and utilize lines of best fit to model the relationship between the variables; and

(v) Determine the empirical and theoretical probability for both simple and compound events; and

c. Demonstrate knowledge of the history of mathematics, including the contributions of different individuals and cultures toward the development of mathematics and the role of mathematics in culture and society;

(2) In the area of mathematical practices have the ability to:

a. Communicate and demonstrate the importance of problem solving and its use in developing conceptual understanding;

b. Represent and model mathematical ideas;

c. Reason abstractly, reflectively, and quantitatively including constructing viable arguments and proofs;

d. Attend to precision;

e. Identify elements of structure and express regularity in patterns of mathematical reasoning;

f. Utilize appropriate mathematical vocabulary and symbols to communicate mathematical ideas; and

g. Demonstrate the interconnectedness of mathematical ideas including making connections across various content areas and real-world contexts;

(3) In the area of mathematical pedagogy have the ability to:

a. Plan and assist others in planning instruction incorporating a variety of strategies including mathematics-specific instructional technologies to build all students' conceptual understanding and procedural proficiency;

b. Analyze and consider research in planning for mathematics instruction;

c. Select and apply instructional techniques that assist in identifying and addressing student misconceptions;

d. Use mathematical content and pedagogical knowledge to select, use, adapt and determine the suitability of mathematics curricula and teaching materials for particular learning goals;

e. Understand students' development in mathematics using holistic, analytical, and diagnostic tools; and

f. Demonstrate developmentally appropriate use of assessments in their practice and train classroom teachers to administer and interpret assessment results; and

(4) In the area of professional knowledge and skills have the ability to:

a. Demonstrate mathematics-focused instructional leadership;

b. Plan, develop, implement and evaluate mathematics-focused professional development programs;

c. Evaluate the alignment of state mathematical standards, district curricula, state and local assessments and recommend appropriate adjustments;

d. Support teachers in systematically reflecting on and learning from their mathematical practice;

e. Collaborate with school-based professionals to develop evidence-based interventions for high-and low- achieving students; and

f. Analyze and interpret mathematics assessment data and communicate results to appropriate and varied audiences.

APPENDIX

Ed 504.01	RSA 21-N:9, II(s)
Ed 504.02	RSA 21-N:9, II(s)
Ed 504.03	RSA 21-N:9, II(s)
Ed 504.04	RSA 21-N:9, II(s)
Ed 504.041	RSA 21-N:9, II(s)
Ed 507.02	RSA 186:11, X(a)
Ed 507.03	RSA 186:11, X(a)
Ed 507.03	RSA 186:11, X(a)
Ed 507.12(a)	RSA 21-N:9, II(s)
Ed 507.251	RSA 186:8, III- IV, RSA 186:11,X(a)
Ed 507.28 intro., (a) &(b) intro.	RSA 186:8, III- IV, RSA 186:11,X(a)
Ed 507.29(a)	RSA 186:8, III- IV, RSA 186:11,X(a)
Ed 507.50(a)	RSA 186:8, III- IV, RSA 186:11,X(a)
Ed 507.51	RSA 186:8, III- IV, RSA 186:11,X(a)
Ed 612.01	RSA 186:11, X(c)
Ed 614.14	RSA 186:11, X(c), RSA 21-N:9, II(r)